

AMENDMENT TO THE CLAIMS

Listing of Claims:

1. (Currently Amended) A method comprising:

generating data associated with a source video sequence, at least a first body of data being sufficient to permit generation of a first viewable video sequence of lesser quality than is represented by the source video sequence; and

generating at least a second body of data, dependent upon the source video sequence and a reconstructed portion of the first body of data, being sufficient to enhance the quality of the first viewable video sequence generated by the first body of data wherein enhancement processing is independent of any intermediate data in a base layer as a result of a change in the calculation of an enhancement layer quantization residue wherein an enhancement residual addition applies only to a final base layer output after a base layer clipping operation ~~and not before a base layer clipping operation.~~

2. (Original) The method of claim 1, wherein generating at least a second body of data, dependent upon the source video sequence and a reconstructed portion of the first body of data, being sufficient to enhance the quality of the first viewable video sequence generated by the first body of data further comprises:

reusing circuitry associated with generating the at least first body of data for generating the at least second body of data.

3. (Original) The method of claim 1, wherein the units of the second bodies of data include a block of video data.

4. (Canceled).

5. (Original) The method of claim 1, wherein generating at least a second body of data, dependent upon the source video sequence and a reconstructed portion of the first body of data, being sufficient to enhance the quality of the first viewable video sequence generated by the first body of data further comprises:

determining the difference between the source video sequence and reconstructed portion of the first body of data.

6. (Currently Amended) An article comprising a computer-readable medium which stores computer-executable instructions, the instructions causing a computer to:

generate data associated with a source video sequence, at least a first body of data being sufficient to permit generation of a first viewable video sequence of lesser quality than is represented by the source video sequence; and

generate at least a second body of data, dependent upon the source video sequence and a reconstructed portion of the first body of data, being sufficient to enhance the quality of the first viewable video sequence generated by the first body of data wherein enhancement processing is independent of any intermediate data in a base layer as a result of a change in the calculation of an enhancement layer quantization residue wherein an enhancement residual addition applies only to a final base layer output after a base layer clipping operation ~~and not before a base layer clipping operation.~~

7. (Original) The article of claim 6, wherein instructions causing the computer to generate at least a second body of data, dependent upon the source video sequence and a reconstructed portion of the first body of data, being sufficient to enhance the quality of the first viewable video sequence generated by the first body of data further comprises:

instructions causing the computer to reuse circuitry associated with generating the at least first body of data for generating the at least second body of data.

8. (Original) The article of claim 6, wherein the units of the second bodies of data include a block of video data.

9. (Canceled).

10. (Original) The article of claim 6, wherein the instructions causing the computer to generate at least a second body of data, dependent upon the source video sequence and a reconstructed portion of the first body of data, being sufficient to enhance the quality of the first viewable video sequence generated by the first body of data further comprises:

instructions causing the computer to determine the difference between the source video sequence and reconstructed portion of the first body of data.

11. (Currently Amended) A method for encoding a video sequence of pictures, comprising:

applying encoding to the sequence of pictures to produce a first body of data being sufficient to permit generation of a viewable video sequence of lesser quality than is represented by the source video sequence; and

deriving a second body of data, based upon the video sequence of pictures and a reconstructed portion of the first body of data, sufficient to enhance the quality of the viewable video sequence generated from the first body of data wherein enhancement encoding processing is independent of any intermediate data in a base layer as a result of a change in the calculation of an enhancement layer quantization residue wherein an enhancement residual

addition applies only to a final base layer output after a base layer clipping operation ~~and not~~
~~before a base layer clipping operation.~~

12. (Original) The method of claim 11, wherein deriving a second body of data based upon the video sequence of pictures and a reconstructed portion of the first body of data, sufficient to enhance the quality of the viewable video sequence generated from the first body of data, further comprises:

reusing circuitry associated with generating the first body of data for generating the second body of data.

13. (Original) The method of claim 11, further comprising determining the difference between the video sequence of pictures and a reconstructed portion of the first body of data.

14. (Original) The method of claim 11, wherein the units of the second bodies of data include a block of video data.

15. (Canceled).

16. (Currently Amended) An article comprising a computer-readable medium which stores computer-executable instructions for encoding a video sequence of pictures, the instructions causing a computer to:

apply encoding to the sequence of pictures to produce a first body of data being sufficient to permit generation of a viewable video sequence of lesser quality than is represented by the source video sequence; and

derive a second body of data, based upon the video sequence of pictures and a reconstructed portion of the first body of data, sufficient to enhance the quality of the viewable video sequence generated from the first body of data wherein enhancement encoding

processing is independent of any intermediate data in a base layer as a result of a change in the calculation of an enhancement layer quantization residue wherein an enhancement residual addition applies only to a final base layer output after a base layer clipping operation ~~and not before a base layer clipping operation.~~

17. (Original) The article of claim 16, wherein instructions for causing the computer to derive a second body of data based upon the video sequence of pictures and a reconstructed portion of the first body of data, sufficient to enhance the quality of the viewable video sequence generated from the first body of data, further comprises:

instructions for causing the computer to reuse circuitry associated with generating the first body of data for generating the second body of data.

18. (Original) The article of claim 16, further comprising instructions for causing the computer to determine the difference between the video sequence of pictures and a reconstructed portion of the first body of data.

19. (Original) The article of claim 16, wherein the units of the second bodies of data include a block of video data.

20. (Canceled).

21. (Currently Amended) A system for encoding and decoding a video sequence of pictures, comprising:

an encoder capable of

generating data associated with a source video sequence, at least a first body of data being sufficient to permit generation of a first viewable video sequence of lesser quality than is represented by the source video sequence;

generating at least a second body of data, dependent upon the source video sequence and a reconstructed portion of the first body of data, being sufficient to enhance the quality of the first viewable video sequence generated by the first body of data wherein enhancement encoding processing is independent of any intermediate data in a base layer as a result of a change in the calculation of an enhancement layer quantization residue wherein an enhancement residual addition applies only to a final base layer output after a base layer clipping operation ~~and not before a base layer clipping operation~~;

 a decoder capable of
 undoing the adjustment made by the encoder.

22. (Original) The system of claim 21, wherein an encoder capable of generating at least a second body of data, dependent upon the source video sequence and a reconstructed portion of the first body of data, being sufficient to enhance the quality of the first viewable video sequence generated by the first body of data further comprises an encoder capable of:

 causing the computer to reuse circuitry associated with generating the at least first body of data for generating the at least second body of data.

23. (Original) The system of claim 21 wherein the decoder is further capable of performing decoding operations on the first and second bodies of data.

24. (Original) The system of claim 23, further comprising a decoder capable of:
 causing the computer to reuse circuitry associated with decoding the at least first body of data for decoding the at least second body of data.

25. (Original) The system of claim 23, wherein the decoder is further capable of combining the first body with the second body of data.

26. (Canceled).

27. (Currently Amended) A system for encoding and decoding a video sequence of pictures, comprising:

an encoder capable of

generating at least a first body of data;

generating at least a second body of data, dependent upon the video sequence and a reconstructed portion of the first body of data wherein enhancement encoding processing is independent of any intermediate data in a base layer as a result of a change in the calculation of an enhancement layer quantization residue wherein an enhancement residual addition applies only to a final base layer output after a base layer clipping operation ~~and not before a base layer clipping operation~~; and

causing the computer to reuse circuitry associated with generating the at least first body of data for generating the at least second body of data;

a decoder capable of

performing decoding operations on the first and second bodies of data;

and

causing the computer to reuse circuitry associated with generating the at least first body of data for generating the at least second body of data.

28. (Original) The system of claim 27, wherein the decoder is further capable of combining the first body with the second body of data.

29. (Canceled).

30. (Currently Amended) A method for encoding and decoding a video sequence of pictures, comprising:

generating data associated with a source video sequence, at least a first body of data being sufficient to permit generation of a first viewable video sequence of lesser quality than is represented by the source video sequence;

generating at least a second body of data, dependent upon the source video sequence and a reconstructed portion of the first body of data, being sufficient to enhance the quality of the first viewable video sequence generated by the first body of data wherein enhancement encoding processing is independent of any intermediate data in a base layer as a result of a change in the calculation of an enhancement layer quantization residue wherein an enhancement residual addition applies only to a final base layer output after a base layer clipping operation ~~and not before a base layer clipping operation~~; and

decoding the at least the first and second body of data.

31. (Original) The method of claim 30, wherein generating at least a second body of data, dependent upon the source video sequence and a reconstructed portion of the first body of data, being sufficient to enhance the quality of the first viewable video sequence generated by the first body of data further comprises:

reusing circuitry associated with generating the at least first body of data for generating the at least second body of data.

32. (Original) The method of claim 30, further comprising:

reusing circuitry associated with decoding the at least first body of data for decoding the at least second body of data.

33. (Original) The method of claim 30, further comprising:

combining the first and second bodies of decoded data.

34. (Canceled).

35. (Currently Amended) A method for encoding and decoding a video sequence of pictures, comprising:

generating at least a first body of data;

generating at least a second body of data, dependent upon the video sequence and a reconstructed portion of the first body of data wherein enhancement encoding processing is independent of any intermediate data in a base layer as a result of a change in the calculation of an enhancement layer quantization residue wherein an enhancement residual addition applies only to a final base layer output after a base layer clipping operation ~~and not before a base layer clipping operation;~~

reusing circuitry associated with generating the at least first body of data for generating the at least second body of data;

performing decoding operations on the first and second bodies of data; and

reusing circuitry associated with decoding the at least first body of data for decoding the at least second body of data.

36. (Original) The method of claim 35, further comprising combining the first body with the second body of decoded data.

37. (Canceled).

38. (Currently Amended) A method for decoding comprising:
decoding first and second bodies of data; and

reusing circuitry associated with decoding the at least first body of data for decoding the at least second body of data; and

enhancement decoding processing independent of any intermediate data in a base layer as a result of a change in the calculation of an enhancement layer quantization residue wherein an enhancement residual addition applies only to a final base layer output after a base layer clipping operation ~~and not before a base layer clipping operation~~.

Claims 39-40 (Canceled).

41. (Currently Amended) A method for encoding comprising:
generating at least a first body of data;
generating at least a second body of data, dependent upon the video sequence and a reconstructed portion of the first body of data wherein enhancement encoding processing is independent of any intermediate data in a base layer as a result of a change in the calculation of an enhancement layer quantization residue wherein an enhancement residual addition applies only to a final base layer output after a base layer clipping operation ~~and not before a base layer clipping operation~~; and
reusing circuitry associated with generating the at least first body of data for generating the at least second body of data.